



Training Session

A database of over 14,000 known breeding sites will be maintained and updated routinely.

Special Programs

Medical Needs

Residents who are highly allergic to mosquito bites or have special needs may qualify for the “Medical Needs” program, which offers extra larviciding and adulticiding services. The need must be verified by a health care provider.

Long Driveway

The “Long Driveway” program is designed to provide relief from biting adults to residents with long driveways, where driving by the residence on the main road would not be beneficial. Approved residences are mapped and sprayed regularly.

Education

Community outreach will continue to be an important part of the program. Educational programs and presentations are designed to raise awareness of the mosquito’s habitat and life cycle. Presentations are given to students and community service groups, while flyers and brochures are hand-distributed or mailed.



Lab Operations

Mosquito Surveillance

Monitoring spring *Aedes* mosquitoes will begin in late-March through tracking of larval development in 40 woodlots. Larvae will be sampled with a pint-sized dipper and counted before and after treatments to determine management effectiveness. Surveillance will continue throughout the 2011 season. After emergence of spring mosquitoes, lab personnel will switch gears and begin conducting surveillance for summer species in habitats such as flooded fields and woodlots, roadside ditches, catch basins, tree holes, idle swimming pools, sewage lagoons, and retention ponds. Larval samples will be identified by species.

Adult mosquito populations will also be checked using mechanical traps—New Jersey Light Traps, CDC Traps, and Gravid Traps. Data will be collected to estimate species populations and distribution, to decide on control strategies, to evaluate treatment effectiveness, and for disease surveillance purposes. Known vectors will be submitted to Michigan State University for viral analysis.

Disease Surveillance

Mosquito activity, changes in weather, and arbovirus activity are closely monitored in the disease surveillance program. Testing mosquitoes and wild birds for the presence of viruses allows information to be gathered that helps efficiently guide control of both nuisance and vector mosquitoes.

Surveillance efforts will continue through submitting mosquito vectors and collecting and testing American Crows and Blue Jays. Primarily, we will be looking for various types of encephalitis—West Nile, eastern equine, LaCrosse, and St. Louis. VecTests® will be utilized to test saliva samples from dead birds for presence of West Nile encephalitis; all information collected will be shared on Bay County Mosquito Control’s website (www.baycounty-mi.gov/MosquitoControl) and with the State of Michigan.

March 2, 2011

Bay County Mosquito Control



Program Plan 2011

Granular *Bti*, the bacterial larvicide of choice for the treatment of spring woodlots, will be used to treat 40,000 acres throughout Bay County.









Highlights

- NPDES permit
- Natular™ G aerial trial
- 25th Annual Michigan Mosquito Control Association Conference
- Payroll software
- Map “wild” catch basins

Personnel

Seven full-time staff members are employed to complete a range of tasks, including mosquito surveillance and suppression, supervision, mapping, data entry, education, and equipment/vehicle repair. In addition, 34 seasonal employees will be hired for the 2011 season. Recruitment will take place through classified ads and the Regional Great Lakes Bay Opportunity Expo at Delta College on April 1. Interviews for qualified candidates will occur from March through May, with hourly wages remaining at \$8 (day shift) and \$10 (night shift). Seasonal staff will attend a training session, be issued a training manual, and pass an exam administered by the MDA to become certified pesticide applicators.

	<div> <h2>Spring Surveillance and Treatment</h2> </div> <div> <p>Spring larviciding controls “snowmelt” <i>Aedes</i> mosquito larvae in woodlots using <i>Bti</i> before larvae emerge as biting adults. The product kills mosquito larvae, but does not</p> </div> <div> <p>The following is a list of components of the spring aerial program: monitor 40 woodlots, treat 500 acres by hand, operate fixed wing operation from Barstow Airport, utilize eight possible loading zones with the helicopter, calibrate aircraft to deliver 4 or 5 lb/acre dosage rate.</p> </div> <div>  </div> <div> <p>adversely affect other wildlife or beneficial insects, people, or pets. Aerial and ground applications will be timed to coincide with the second and third instar larval stage. Clarke of Roselle, IL will provide helicopter services while Earl’s Spraying Service of Breckenridge, MI will be the fixed wing applicator. Woodland area treated by air will remain about the same at nearly 40,000 acres. Treatment occurs after extensive surveillance has taken place.</p> </div> <div>  </div>	<div>  </div>	<div> <p>Maps are continuously updated as changes are made to roads, subdivisions, and habitats.</p> </div> <div> <h3>Customer Service</h3> </div> <div> <p>In a typical year, we will respond to over 2,500 service requests from Bay County citizens. Logging phone calls reporting large populations of mosquitoes is another means we have for</p> </div>
<div> <h3>Scrap Tire Drive</h3> </div> <div> <p>We plan to hold two community-wide scrap tire drives during the 2011 season. Ten tires without rims can be dropped off by each Bay County resident. The tire drive is designed to collect tires from residents, thereby targeting scrap tire breeding in neighborhoods; businesses are excluded. Both tire drives will be held at the Bay County Fairgrounds, but during one of the tire drives, residents will also be able to drop off tires at a second location—Pinconning County Park. Tires are shipped to Environmental Rubber Recycling of Flint via semi trailers where they are shredded to no longer hold water and, therefore, breed mosquitoes.</p> </div>	<div> <h3>Summer Larviciding</h3> </div> <div> <p>Surveillance and treatment of temporary and permanent breeding sites will be conducted to control larvae and prevent adult emergence. Habitats with a previous history of breeding will be investigated, with additional emphasis on mapping new sites. We expect to survey nearly 20,000 sites, treating about 15%. We will give emphasis to source reduction in the form of dumping water from containers to eliminate larvae. Technicians will respond to service requests phoned in by residents, using a variety of control materials. Catch basins, roadside ditches, idle pools, flooded fields, woodlots, sewage lagoons, scrap tires, and artificial containers will be monitored regularly.</p> </div>	<div> <h3>Summer Adulticiding Operations</h3> </div> <div> <p>Our primary goal is to protect public health by managing mosquito populations so they do not present a significant risk to our community. In order to meet that goal, fogging to reduce adult mosquitoes will be carried out using eight ULV (Ultra Low Volume) spray units. Truck-mounted fogging will occur from sunset to 1:00 a.m., providing mosquito populations are high enough to warrant treatment.</p> </div> <div> <p>Adulticiding involves the use of a control material (permethrin) to reduce numbers of adult mosquitoes to tolerable levels or</p> </div> <div> <p>to disrupt or end the transmission of disease to humans.</p> </div> <div> <p>Spray equipment is calibrated to ensure the proper amount of product is applied during each treatment; droplets are also measured several times each season to make certain label recommendations are followed.</p> </div> <div> <p>Residents who prefer their property not be treated will be excluded from treatment. A reflective sign must be posted at their property boundaries to aid technicians in recognizing properties to avoid.</p> </div>	<div>  </div> <div> <p>surveillance. Traps can then be placed in response to these calls to monitor mosquito abundance and species activity. Mosquito control in areas surrounding community events, such as the Munger Potato Festival, 4th of July Weekend, Auburn Corn Festival, St. Stan’s Festival, and the Pinconning Cheese Town Challenge also takes place throughout the summer.</p> </div>
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